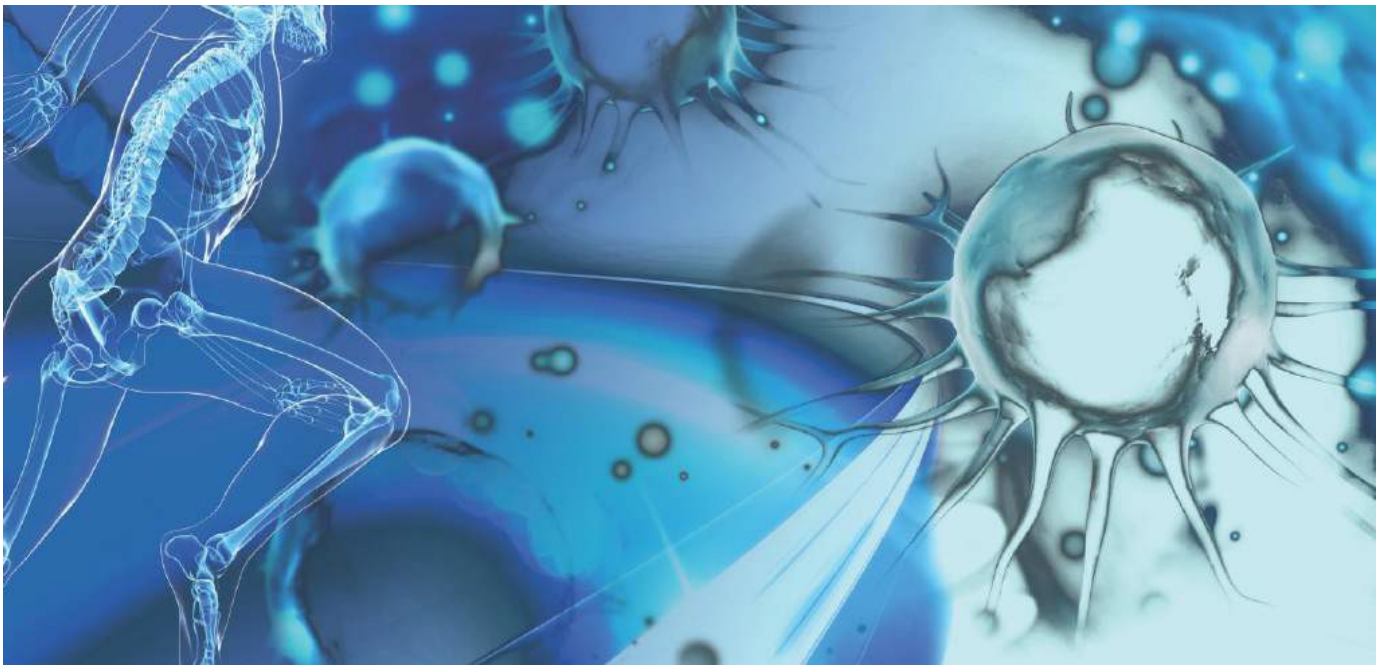

Thank you for your interest in Regenerative Medicine, procedures that are radically changing treatment of musculoskeletal conditions. Stem Cell Therapy and Platelet Rich Plasma Injections (PRP) are non-surgical procedures designed to accelerate regeneration of cells in healing of acute and chronic musculoskeletal injuries and arthritis.

Please call our office at 469-351-3432 to make an appointment for a consultation or further information.

Until recently, traditional orthopedic treatment for chronic pain and degeneration included cortisone injections and pain medications which both often have negative side effects. The other option was surgery that involves lengthy rehab and often doesn't work.

Research exploring ways in which the body actually heals has allowed for innovative advancements in regenerative orthopedics. Regenerative medicine helps bodies mend themselves, providing cures for people who have been living — until now — without treatment options.

Stem Cell Therapy and PRP are non-surgical procedures designed to accelerate regeneration of cells in healing of acute and chronic musculoskeletal injuries. They address the root cause of your pain rather than merely treating the symptoms.

Using advanced ultrasound or fluoroscopic guided procedures, stem cells and/or platelets are injected into damaged tissue to help the body generate new cells. Mesenchymal stem cells found in adipose tissue and bone marrow, along with potent umbilical stem cells, are the most powerful treatment available for orthopedic

Stem Cell Therapy

Stem Cell Therapy has created a renaissance in treatment of orthopedic injuries and joint pain. Regenerative Orthopedics enhances the body's natural healing powers to treat conditions that have previously been treated primarily through surgery. Stem cells act as an EMR Unit produced naturally by the body to repair and regenerate millions of cells each minute. When the body becomes overwhelmed due to chronic or severe conditions, Stem Cell Therapy can provide targeted healing cells to damaged tissue to allow for accelerated and more complete healing.

Thrive Pain Management offers several types of Stem Cell Therapy for our patients to choose from according to their preference. We also offer a series of optional protocols, so your treatment can be tailored to individual

Bone Marrow-derived Stem Cell Therapy

Science has discovered that both bone marrow and adipose cells are rich in MSCs. These can be harvested from the patient's body and injected in a condensed form into an injured site.

Mesenchymal stem cells (MSCs) found in adult bone marrow are extracted from the back of the patient's pelvis or hip bone using a special needle developed for bone marrow extraction. FDA-approved devices concentrate the bone marrow into what is called "Bone Marrow Aspirate Concentrate" (BMAC). The cells are not manipulated or altered with additives. These adult stem cells are considered multipotent stem cells, so are able to differentiate into the type of cell into which they are injected.

Following each of these procedures, there is a recovery period of one to two weeks when stress to the joints must be minimized to allow the body to heal properly. The injected area may be sore for 48-72 hours while the early inflammation phase subsides. A follow-up visit will be scheduled for approximately 8 weeks. A booster injection of Platelet Rich Plasma (PRP) may be given at this time to maximize the healing process.

Regenerative Procedures

Platelet Rich Plasma Injections

PRP condenses and re-injects the body's natural healing elements to promote and accelerates the healing process of soft tissue injuries and osteoarthritis. Plasma, the liquid portion of blood, acts primarily as a transport medium for blood cells, nutrients, and metabolic waste products, which contributes to the physiological stability of the body. **Platelets** are among the many blood cells in plasma that not only play an important role in forming blood clots but also contain growth factors, such as alpha-granules, that are central to the body's healing process.

Treatments are generally spaced at least 8-12 weeks apart, allowing for proper healing cascade to take effect. Average treatments are 2-3; however, some patients require more treatments depending on their individual concerns. Typically, more severe, chronic issues will require a greater number of treatments. Some personal factors that may inhibit maximum healing include smoking, poor nutrition, diabetes and other immune suppressing conditions.

Common Conditions Treated

Regenerative Orthopedic procedures are designed to stimulate the body to regenerate cells in areas of degeneration at an accelerated rate. Procedures include Stem Cell Therapy, Platelet Rich Plasma Injections (PRP), Prolotherapy, and Amniotic Membrane Injections. These injections are a safe, non-surgical option for chronic injuries, pain and arthritis.

Pain from sport and accident injury, overuse and the aging process is often caused by damage to the joints and connective tissue. If the structures do not heal properly, chronic degeneration and arthritis result. Regenerative Orthopedic procedures accelerate and enhance the natural healing process.

Cervical Spine arthritis, instability, whiplash, disc disease **Thoracic Spine** arthritis, instability, rib dysfunction	**Elbow** instability, arthritis, Tennis Elbow (lateral epicondylitis), Golfer's Elbow (medial epicondylitis), triceps tendinosis/tears	**Knee** arthritis, ligament instability/tears, Runner's knee (tendinosis), Osgood-Schlatter's Disease, pes anserine tendinosis
Lumbar Spine **arthritis, instability, disc disease, spondylosis, pain after surgery** **Pubic Symphysis** **osteitis pubis, instability, sports hernia**	**Wrist and Hand** thumb arthritis and instability, carpal bone instability, carpal tunnel syndrome, TFCC tears, finger arthritis	**Ankle and Foot** Arthritis, instability/chronic sprains, sinus tarsi syndrome, Achilles tendinosis/tears, plantar fasciitis
Shoulder **instability, recurrent subluxation, impingement syndrome, RTC tendinosis/tearing, arthritis of GH joint or AC joint, SLAP injuries (labral tears)**	**Hip and Pelvis** Instability, arthritis, pelvis tendinosis and pain, hip stabilizing muscles/tendons, chronic IT band tendinosis, chronic hamstring strains/tears	**TMJ**

Musculoskeletal injuries normally take 8-12 weeks for the repair process to occur. Anti-inflammatory and pain medications or steroid injections actually inhibit this process. Surgery should be the last option for chronic pain and arthritic conditions. Regenerative Orthopedic treatments can produce long-lasting results as they treat the cause of the pain rather than merely treating the symptoms.

REGENERATIVE INFORMATION AND PRICING

PRP (PLATELET RICH PLASMA)
Usually requires 2-4 sets of injections once every 8-12 weeks.

STEM CELLS (BONE MARROW)
Can be repeated every 6 months if needed and PRP for boosters in between if needed.

ALL REGENERATIVE TREATMENTS ARE FULL PRICE FOR FIRST REGION AND HALF OFF SECOND REGION. **WITH THE EXCEPTION OF LOWER BACK, MID BACK AND NECK REGIONS WHICH ARE ONLY DONE ONE REGION AT A TIME.**

PRICING

	PRP	Bone Marrow Stem Cells
Lower Back	500	3500
Neck	500	3500
Mid Back	500	3500
Knee	400	3500
Shoulder	400	3500
Ankle/Foot	400	3500
Wrist	400	3500
Fingers	400	3500
Toes	400	3500
Elbow	400	3500
TMJ	400	3500
Hip	400	3500

Stages of Musculoskeletal Repair

Post injury **First 72 hours**	Inflammatory 1st week	Proliferation 3-6 weeks	Maturation Week 6-18 months
The body's first response is to protect itself. Blood containing platelet cells rushes to the area to stop bleeding and initiate the healing process. Platelets are the most numerous cells shortly after a wound occurs, releasing cytokines, small proteins important in cell signaling, and growth factors. Growth factors stimulate cells to speed their rate of division. Platelets, also, release other chemicals that stimulate the inflammatory phase.	Inflammation is the body's natural response to defend against harmful substances. As the blood vessel become dilated, swelling quickly occurs. A special category of white blood cells that originate in the bone marrow rush to the area as first responders. Two types of leukocyte are predominant in the inflammatory response- macrophages and neutrophils. Neutrophils are first to the injured site and function by neutralizing harmful bacteria. Macrophages aid the healing process by engulfing bacteria and dead cells, ingesting them so that the area is clear for new cells to grow.	Swelling and pain begin to subside and proliferation of cells begins to repair the injury. Proliferation is when the body begins to produce new cells and tissue. Special cells called fibroblasts create a framework of collagen for new cells to develop, essentially sewing the two bits of damaged tissue back together. Collagen is the universal building material for most tissue in the body. In soft tissue, collagen is organized in straight lines, allowing the stress to dissipate evenly through the tissue when it is stretched. However, collagen formed during the Proliferation Stage is constructed in a random fashion. This happens because the body is trying to repair the area quickly. As a result, the repair site is left weak and susceptible to further injury.	New blood vessels mature and the tissue now becomes stronger with more organized and healthy fibers. Pain subsides. Collagen density and tissue strength are increased. Scar tissue, part of the proliferation phase, generally, causes adhesion formation that inhibits mechanical function. When healing is enhanced through cellular regenerative procedures, repair provides increased collagen deposit resulting in reduced scar tissue. Intrinsic healing through an accelerated process results in better bio-mechanics, particularly a better gliding motion in the tendon sheathe.

Ligaments and tendons contain similar biological structure. Healing of these tissues is divided into four overlapping stages (Table) with the body functioning similarly to an EMR unit, each biological function doing its own job in turn. Intrinsic healing enhanced by regenerative injections allows for less secondary tissue damage and quicker, more complete healing.

Frequently Asked Questions

What is the success rate of Regenerative Orthopedic Injections?
Studies show that approximately 86% of the patients who responded said they were satisfied with their treatment.

How many injections are required?
Responses to treatments vary depending on age, overall health, and nature of the injury. Most PRP treatments require 2-3 sets of injections. Stem Cell Injections are more powerful and generally require fewer treatments. The correct procedure for you varies with severity of condition and other health factors.

How soon can I go back to regular physical activities?
Regenerative Injections help to repair soft tissue and accelerate healing. Any healing is not immediate. This therapy is stimulating the growth and repair of tissue which requires time and rehabilitation. Generally speaking, conservative activity is tolerated during the first six weeks. Pain during or after activity is a good indicator of what your body will allow. The length of time, however, is determined by the extent of the injury and your individual healing tendencies.

Are Regenerative Procedures covered by insurance?
No, these procedures are not covered. However. Thrive Pain Management will provide a free regenerative medication consultation. We do provide payment plans through a platform Denefits. We can customize a payment plan that will work for any budget.

Can Regenerative Orthopedic Procedures prevent surgery?
Most soft tissue injuries have portions intact, making regenerative injections a preferred approach. If the tissue is completely torn, however, surgery may be required.

Can I drive after my procedure?
If you have taken any type of sedative, you MUST have a driver. All other procedures do not require a driver. However, we highly recommend having one. You may feel sore or have numbness after your procedure. Every patient responds differently, and it is best to take precautions to ensure your safety.

Should I eat before my appointment?
A light meal and plenty of water about 1-2 hours before the procedure and good hydration the day before is recommended. Water improves cell hydration and lessens the discomfort of the injections. Food diminishes the likelihood of dizziness. Patients report less discomfort when they drink water right up to the time of the injections.

Regenerative Procedure Supplements

Certain supplements are recommended to optimize your body's healing potential. *This does not mean they are required.*

Vitamin C – 2,000 to 3,000 daily
Increases bone marrow production of stem cells. Used as an anti-oxidant and modulator of the immune system. Also, cross links collagen during healing.

L-Glutamine – 3,000 – 5,000 mg daily
An amino acid for tissue repair and immune function.

Arginine - 500mg twice a day
An amino acid that Increases cell health though increasing Nitric Oxide production. It increases blood flow and oxygenation of the healing tissue.

Protein – Intake of 0.5 grams/pound for your ideal body weight
Needed to maintain an anabolic state during the healing phase. With injury and healing, the body has a higher need for healing amino acids and protein.

Turmeric – 300-600 mg/day
Acts as a natural anti-inflammatory. Upregulates bone formation and decreases bone loss.

Vitamin D3 –5,000 IU/day
Helps reduce the aging of stem cell and helps stem cells differentiate into other cell types.

Resvoxitrol – 25-50mg a day
Protects the cartilage and reduces cartilage loss.

Glucosamine/Chondroitin – 1000mg a day
Acts as a natural anti-inflammatory and aids in healthy cartilage.

Oil/Omega 3 healthy fat- 1,000mg daily
Helps modulate abnormal inflammation and augment healing

These supplements will be available via our website soon. For optimal results, begin taking 2-4 weeks prior to beginning your treatment.